

CLAIMS

What is claimed is:

- 5 1. A method for determining accuracy of a classifier, comprising the steps of:
- determining a set of categories of an arrangement of categories selected for an item by the classifier;
- 10 determining a set of categories of the arrangement selected for the item by an authoritative classifier;
- determining an accuracy measure for the item which indicates a degree of correctness of the classifier based on the categories selected by the classifier and the categories selected by the authoritative classifier.
- 15
2. The method of claim 1, wherein the step of
- 20 determining the accuracy measure comprises the steps of:
- assigning a true indication to each category in the arrangement selected by the authoritative classifier and assigning a false indication to each
- 25 category in the arrangement not selected by the authoritative classifier;
- assigning a positive indication to each category in the arrangement selected by the classifier and assigning a negative indication to each category in
- 30 the arrangement not selected by the classifier;
- determining the accuracy measure in response to the true, false, positive, and negative indications.

3. The method of claim 2, wherein the step of  
determining the accuracy measure includes the step of  
determining a true positive count which indicates a  
number of the categories in the arrangement assigned  
5 the true and positive indications.

4. The method of claim 2, wherein the step of  
determining the accuracy measure includes the step of  
determining a false positive count which indicates a  
10 number of the categories in the arrangement assigned  
the false and positive indications.

5. The method of claim 2, wherein the step of  
determining the accuracy measure includes the step of  
15 determining a false negative count which indicates a  
number of the categories in the arrangement assigned  
the false and negative indications.

6. The method of claim 2, wherein the step of  
20 determining the accuracy measure includes the step of  
determining a true negative count which indicates a  
number of the categories in the arrangement assigned  
the false and negative indications.

7. The method of claim 2, further comprising the  
25 step of assigning an indifferent indication to one or  
more of the categories in the arrangement such that  
the categories with the indifferent indication do not  
contribute to the accuracy measure.

8. The method of claim 2, wherein the step of  
30 determining the accuracy measure includes the step of  
determining an indication of over-aggressiveness by

the classifier in response to the true, false, positive, and negative indications.

5 9. The method of claim 2, wherein the step of determining the accuracy measure includes the step of determining an indication of over-conservativeness by the classifier in response to the true, false, positive, and negative indications.

10 10. The method of claim 2, wherein the step of determining the accuracy measure includes the steps of:

15 determining a true positive count which indicates a number of the categories in the arrangement assigned the true and positive indications

20 determining a false positive count which indicates a number of the categories in the arrangement assigned the false and positive indications;

25 determining a false negative count which indicates a number of the categories in the arrangement assigned the false and negative indications;

30 determining a true negative count which indicates a number of the categories in the arrangement assigned the false and negative indications;

determining an indication of over-aggressiveness by the classifier in response to the true, false, positive, and negative indications;

determining an indication of over-conservativeness by the classifier in response to the true, false, positive, and negative indications;

combining the true positive, false positive,  
5 false negative, and true negative counts with the indications of over-aggressiveness and over-conservativeness.

11. The method of claim 1, further comprising the  
10 step of combining the accuracy measure with a set of additional accuracy measures obtained for a set of additional items.

12. The method of claim 1, wherein the accuracy  
15 measure provides a fitness measure for designing the classifier.

13. The method of claim 1, wherein the classifier  
20 provides a prediction of purchasing behavior and the accuracy measure is used to evaluate the prediction.

14. The method of claim 1, wherein the accuracy  
25 measure enables a comparison of the accuracy the classifier with an accuracy of at least one other classifier.

15. The method of claim 1, wherein the classifier is  
30 used in an information management system and the accuracy measure used to evaluate categorization of items in the information management system.

16. The method of claim 1, wherein the classifier is used in a placement of items in electronic portals

and the accuracy measure is used to evaluate the placement.

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